NPower™

XRP™ SERIES

MORE POWER • MORE STABILITY • MORE QUALITY

SOLAR BATTERY CHARGER

User's Manual
For
7Watt/18Watt Solar Panels
#14106
#14105

Specifications and Included Items:
14106: Power Rating: Up to 7 Watts - Maximum rating – Under optimum conditions.
Current: 460 Ma @ 15Volts.

14105: Power Rating: Up to 18 Watts - Maximum rating – Under optimum conditions.
Current: 1.2 Amps @ 15Volts.

Includes:

12 Volt plug
Alligator Battery Clamps
Wire extensions
Solar Panel
4 Stainless Steel Mounting Screws
4 Twist Turn brackets
2 Support stakes
LED Voltage Indicator Light
Stripped wire for charge controller (#14105 only)

Warning:

- Avoid Electrical Hazards when installing, wiring, operating, and maintaining your Solar Module. The solar module included generates DC electricity when exposed to sunlight or other light sources.
- For use in 12-Volt systems only.
- Observe proper polarity throughout entire power cable wiring route.
- Work Safely. Do not wear jewelry when working with electrical or mechanical equipment. Use protective eyewear when working with batteries or drills. Use extreme caution when on ladders or on a roof.
- Follow all Safety Precautions of the battery manufacturer. Some batteries can release flammable hydrogen gas. Do not produce sparks when working in locations where flammable gases or vapors exist. Shield skin and eyes from battery acid. Wash thoroughly with water if skin or clothing come in contact with acid or any corrosive matter, which may have accumulated on the battery. Keep the terminals and casing clean.
- Use a Charge Controller for wattages higher than 15 watts.
- Do not attempt to charge non-rechargeable batteries.
- Always connect charge controller to battery first.
- When disconnecting, always disconnect battery last.

Features

- Weather resistant quick connect and disconnect to the battery
- No direct sunlight needed, will work in cloudy conditions
- Five year limited warranty
- Maintenance free
- Weatherproof
- Full mounting options included

General INSTALLATION
3 easy steps:

1. **Place panel in best possible sun light – choose proper mounting option**
2. **Connect extension cables**
3. **Connect to batteries through various connection options**

1 – mounting panel

General Mounting:
Securely place the solar panel in the sun. Included mounting kit can be used if necessary for permanent installation. To allow for heat dissipation, use a heat-resistant spacer between the panel and the mounting surface when possible.

Mounting with Screws:
Use screws to permanently fix panel through the 4 corners of the panel. This will work well for any non moving structure such as a roof top or shed top or at a worksite. One can use silicone around holes if waterproofing is required.

Secured mounting with screws:
Follow steps above but also attach twist-turn brackets. The brackets twist turn into the back of the panel frame. Look for a channel in the frame – attach the twist turn brackets – turn 90 degrees and they will be secured. Place screw through other end of the bracket for additional security.

Ground Stake Mounting:
For temporary backyard setup – use included ground stakes – fix ground stakes into back of panel channel of frame. Please see image.

2 – Connect extension cables
Connect + to + and – to –
Use included wires to connect wires out of panel to extension and then choose proper connection to battery.

3 - Connect to Battery:

A. Installation through the 12 Volt plug:
Plug the Male Adapter 12 Volt Plug into the Female 12 Volt socket in vehicle. Make sure both ends are secure and are aligned correctly. The panel with the black side up should face directly towards the sun for optimal charging power.

B. Installation to Battery by Alligator Clamps:
Connect the alligator clamps correctly by matching the red clamp which is positive (+) to the positive (+) terminal on your battery. Connect the black clamp which is Negative (-) to the Negative (-) terminal on your battery. Follow this carefully to not cause any bodily harm. The panel with the black side up should face directly towards the sun for optimal charging power.

It is strongly recommended to use a 7 Amp Solar Charge Controller to prevent the battery from overcharging (item # 14105 only – 18W panel)

Maintenance Instructions:
Cleaning of the glass may be performed by the user, by utilizing a clean damp cloth.
Any other maintenance to the unit should be performed by qualified service personnel or contact our experienced customer service team.

NOTE:
These Solar Battery chargers have a built in blocking diode to prevent reverse discharge.

FAQ:

What types of batteries can my solar charger charge?
All 12 Volt batteries similar to those used in cars, boats, RV's, motorcycles and personal water craft.

Can I overcharge my battery?
Yes! It is recommended to buy the N'Power 7 Amp charge regulator to not overcharge the battery with item #14105.

Will the Solar Charger keep my battery fully charged?
The Solar Charger charges your battery with the power of the sun.

Can I extend the wire?
The 12' wire can be extended up to a maximum of 27', without Loss of power or voltage.

How many batteries can I charge using 1 unit?
This Solar Charger is capable of charging a bank of batteries but the charge will be divided. Ensure positive to positive and negative to negative connections to ensure 12Volts.

Can this Solar Charger run my whole house?
No. This panel is best used to recharge 12Volt Batteries.

How can I run 110 Volt appliances with my Solar Chargers?
By using an Inverter connected to the battery that Converts DC Power to AC Power.

Is my Solar Charger Weatherproof?
Yes, these panels are fully weatherproofed.

Can I run an appliance directly from my Solar Charger without a battery?
Yes, although the Solar Charger might have inconsistent voltages and will affect running the appliance. It is recommended to charge 12Volt batteries only.

TROUBLESHOOTING:
I am not sure if my panel is functioning?
- Ensure battery is operational. Over time, a battery's ability to recharge will deteriorate.
- Ensure the distance of the wires is not longer than 30 feet and all connections are secure.
- Measure the panel voltage with a voltmeter. The voltage reading should be between 16 to 25 volts in the sun

Warranty

This product is covered by a 5 year limited warranty. N'Power will warrant to the original purchaser that this product is free from defects in materials and workmanship for the period of two years from date of purchase. To obtain warranty service please contact N'Power for further instruction, at 1-800-222-5381. Proof of purchase including date, and an explanation of complaint is required for warranty service. Distributed by Northern Tool + Equipment Company 2800 South cross Drive Burnsville, MN 55306
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